BOURNS®

Board Level Components

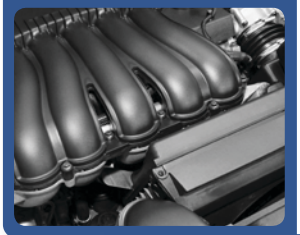
for Automotive Applications

As automobiles have become more sophisticated, incorporating electronic features throughout, there has been a sharp increase in the complexity of the integrated circuitry. The need for power management of these devices has grown exponentially. Since power consumption in automotive applications must be minimized, the design focus is now on cost-effectiveness for efficiency rather than cost-effectiveness for pure functionality. As illustrated in this flyer, Bourns has developed a strong portfolio of inductive and circuit protection components ideally suited for use at the board level for a wide range of automotive applications.

Automotive components must be capable of handling current surges at power-up as well as when they become active. To meet the various power requirements of circuitry in automotive applications, power conversion is performed at the circuit board level. Inductors are a critical energy storage component, helping to provide consistent current flow. In some cases, the same footprint is available for multiple inductance values, which provides flexibility in choosing the specific value without having to re-spin a board design. Chokes are also used to suppress electromagnetic interference in data and signal lines, such as the CANbus interface. With more than 200 inductor models available, Bourns offers shielded, unshielded, and semi-shielded options depending on radiation, noise, efficiency, switching frequency, and space constraints.

Bourns has a long history of serving the automotive market with quality sensor products, and the company's inductive and circuit protection components are available to meet the non-sensor, board level requirements of many automotive applications. With excellent customer service and the availability of field application engineers, Bourns works closely with automotive system designers in selecting the right components, providing layout support, and making modifications as necessary. Bourns performs surge tests and offers application and customer-specific testing. Leaving the details of circuit protection and inductive technology to Bourns allows automotive designers to concentrate on their specific core application differentiation.

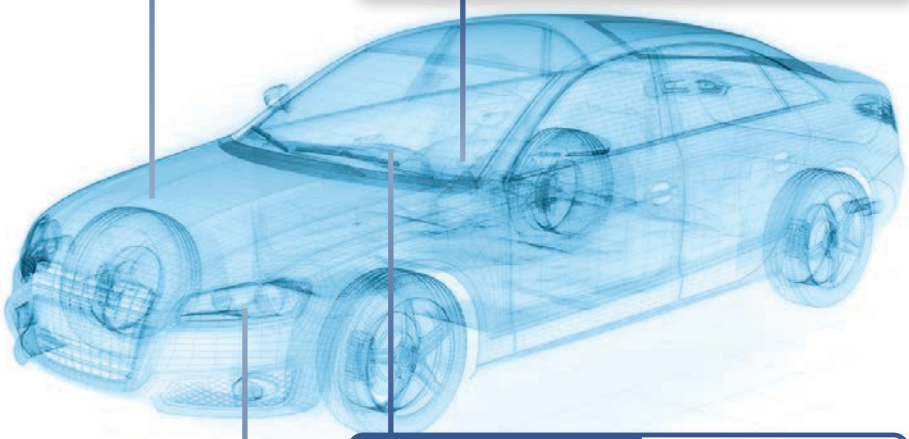
ENGINE PERFORMANCE



- CANbus System
- Cooling Fan
- Engine Start/Stop Stabilizer
- Fuel Pump Control
- Hybrid Battery
- Steering Column

DRIVER ASSISTANCE

- Automatic Door Locks
- Back-up Camera
- Digital Visual Interface
- Keyless Passive Entry
- Park Assistance
- Retracting Mirrors
- Seat Controls
- Seat Motors
- Window Lift Motors



INFOTAINMENT

- Audio Control Unit
- Automatic Door Locks
- Body Computer
- Car Alarm System
- Car Antenna
- Communication Motherboard
- Entertainment System
- I/O and USB 2.0 Ports
- Navigation System

LIGHTING

- HID Lights
- Internal Lighting
- LED Lights

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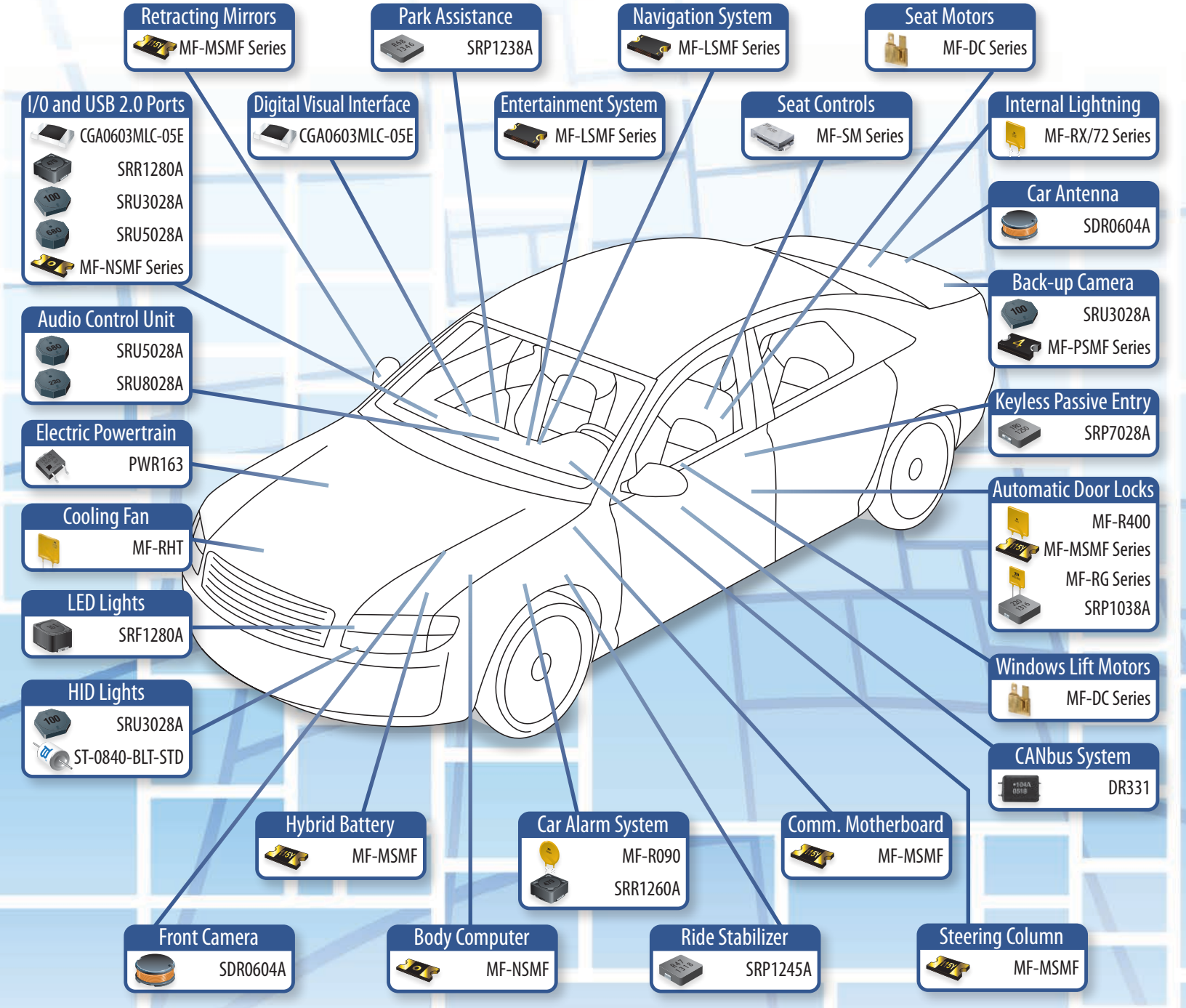

Bourns® Multifuse® PPTC resettable fuses provide protection from overcurrent and overtemperature conditions, protecting electronics from surge currents. The small resistance of a Bourns® Multifuse® PPTC device does not affect the operation of the circuit under normal operating conditions. If the current or temperature exceed the specified operating limits, the Bourns® Multifuse® PPTC resettable fuse switches to a high impedance mode and acts like an open circuit. By allowing only minimal current to flow through it, this passive series component protects the circuit until the fault has been cleared and power has been reset, at which time normal operation may resume. Bourns® Multifuse® PPTC components are available in strap, disk, through-hole, and SMD packages, which use materials suited for a range of temperatures compatible with current industry standards, and can often be customized to meet specific requirements.

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www.bourns.com

AEC-Q200 QUALIFICATION TESTING AVAILABLE UPON CUSTOMER REQUEST.